

WHAT IS CLAIMED IS:

1 1 A method for surveillance comprising:
2 capturing a plurality of still frames;
3 generating, from said plurality of still frames, a sequence of digital image
4 arrays comprising a full frame and a plurality of differential frames;
5 transmitting said sequence to a camera coordinator;
6 determining, using said sequence, whether an incident is associated with
7 one or more frames in said sequence;
8 transmitting said sequence to an image server;
9 storing said sequence at said image server; and
10 providing said sequence to one or more clients for viewing by a user.

1 2. The method according to claim 1 wherein said sequence stored at
2 said image server is stored in a format designed for still image display on a client
3 browser.

1 3. The method according to claim 1 wherein said sequence stored at
2 said image server is stored in a format allowing for a pixel to be encoded as a transparent
3 pixel.

1 4. The method according to claim 1 wherein said sequence stored at
2 said image server comprises a full frame and one or more subsequent differential frames
3 wherein pixels in a differential frame with values within a threshold of corresponding
4 pixels in a preceding frame are set to transparent.

1 5. The method according to claim 1 wherein said generating creates a
2 sequence of full and differential frames in a format designed for still image display on a
3 client browser and allowing for a pixel to be encoded as a transparent pixel.

1 6. The method according to claim 5 wherein said sequence is
2 transmitted to said camera coordinator, stored at said camera coordinator, transmitted to
3 said image server, stored at said image server, and viewed by a client all using an image
4 encoding format for still image display on a client browser and allowing for a pixel to be
5 encoded as a transparent pixel.

1 7. The method according to claim 2 wherein said format is the PNG
2 format.

1 8. The method according to claim 2 wherein said format is the GIF
2 format.

1 9. The method according to claim 1 wherein said deriving comprises
2 computing a percentage value for a differential frame indicating a calculated percentage
3 change between said differential frame and a preceding frame.
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1 10. The method according to claim 1 wherein said determining
2 comprises comparing a single still frame to a preceding frame.

1 11. The method according to claim 1 wherein said deriving includes
2 computing a percentage value for a differential frame indicating a calculated percentage
3 change between said differential frame and a preceding frame.

1 12. The method according to claim 1 wherein said clients comprise off
2 the-shelf internet browser software.

1 13. The method according to claim 1 further comprising:
2 storing said sequence at said camera coordinator.

1 14. The method according to claim 1 wherein said storing comprises
2 storage of sequences for which incidents were detected for later transmission as requested
3 by an image server.

1 15. The method according to claim 1 wherein said image server
2 includes a network interface with a high bandwidth capacity allowing for multiple
3 simultaneous client connections.

1 16. A method for surveillance comprising:
2 capturing a plurality of still frames as arrays of digital data;
3 designating a frame in said plurality as a full frame;
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4 for a frame subsequent to said full frame, computing a differential frame
5 wherein a pixel in said differential frame that is within a threshold of a geometrically
6 corresponding pixel in a preceding frame is set to transparent;
7 ✓ for a frame subsequent to said full frame, computing a percentage
8 difference indicating a degree of change of pixels from a preceding frame;
9 ✓ transmitting a full frame, one or more differential frames, and one or more }
10 computed percentages to a camera coordinator;
11 ✓ determining that an incident has occurred using rules-based logic to }
12 analyze data received from said frame grabber;
13 storing frame data, image data, and incident data;
14 transmitting frame data to an image server; and
15 presenting frame data by said image server to one or more clients for }
16 viewing by one or more users.

1 17. A method for capturing, analyzing, and presenting image data from
2 one or more digital image capture devices comprising:
3 capturing a plurality of digital image frames;
4 producing a plurality of sequences, said sequences comprising a full frame
5 followed by one or more differential frames wherein pixels in said differential frames are
6 set to transparent when they have a value within a threshold of a value of corresponding
7 pixels in a preceding frame;
8 determining whether an incident is associated with one or more frames;
9 storing said plurality of sequences; and
10 presenting one or more sequences to a client viewer in response to a
11 viewer's request or when an incident is associated with a sequence.

1 18. The method according to claim 17 wherein said determining
2 comprises computing a percentage of pixels that have changed in one frame from one or
3 more preceding frames.

1 19. The method according to claim 17 wherein said sequence stored at
2 said image server is stored in a format designed for still image display on a client
3 browser.

- 1 20. The method according to claim 17 wherein said storing comprises
2 storage of sequences for which incidents were detected for later transmission as requested
3 by an image server.

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